



## Appendix A.10

### Utility System Data



## Utility System Data

### Overhead Line Data

#### *Distribution Transformer Parameters for Overhead Line*

	Rated KVA	Rated voltage (KV)	%Z	X/R	NL (W)	LL (W)	No. of customers served
Utility "A"	37.5	12/0.24 4/0.24	1.75 1.75	1.032 1.032	*	*	15
Utility "B"	25	12/0.24 16/0.24 4/0.240	2.01 2.07 2.06	1.4 1.4 1.4	62 69 63	360 378 384	13
Utility "C"	25/50	12	1.2-1.4	*	*	*	*
Utility "D"	37.5	19.8	1.4	1.2	*	*	4
Utility "E"	50	36.5	2.17	1.58	*	*	4
Utility "F"	*	*	*	*	*	*	*

**Note:** \* corresponds to data not provided

#### ***Transformer Loading Data***

##### **1. Utility "A":**

Peak Loading: 50-55 KW

Minimum Loading : 15-20 KW

Load Profile : Peak loading from 6pm to 8pm dropping gradually to minimum loading from 3am to 5 am , rising to 40 KW from 7am to 9am dropping to 30 KW for late morning to early afternoon.

**Service Line Data**

	Service Length (ft)	Type of Conductor	Service Drops and conductor type
Utility "A"	100	4/0 AWAC	15 drops with mix of #2 Al and #4 Al Triplex of length 20" each
Utility "B"	80	#4 Al Triplex	*
Utility "C"	*	*	*
Utility "D"	75	1/0Al Triplex	*
Utility "E"	200	1/0 Al Triplex	*
Utility "F"	*	*	*

**Note:** \* corresponds to data not provided

## Underground Line Data

### *Distribution Transformer Parameters for Underground Line*

	Rated KVA	Rated voltage (KV)	%Z	X/R	NL (W)	LL (W)	No. of customers served
Utility "A"	50	12/0.24 2.4/0.24	1.75 1.75	1.032 1.032	*	*	20
Utility "B"	25	12/0.24 16/0.24 4/0.240	1.87 1.87 2.01	1.4 1.4 1.4	87 94 64	380 387 394	6-8
Utility "C"	25/50	12	1.2-1.4	*	*	*	*
Utility "D"	50/75	19.8	1.8	1.5	*	*	5-7
Utility "E"	50	36.5	2.17	1.58	*	*	8
Utility "F"	*	*	*	*	*	*	*

**Note:** \* corresponds to data not provided

### ***Transformer Loading Data***

#### **1. Utility "A":**

Peak Loading: 70-75 KW

Minimum Loading : 25 KW

Load Profile : Peak loading from 6pm to 8pm dropping gradually to minimum loading from 3am to 5 am , rising to 60 KW from 7am to 9am dropping to 45KW for late morning to early afternoon.

**Service Line Data**

	Service Length (ft)	Type of service line conductor	Service Drops and conductor type
Utility "A"	125-130	4/0 Al	20 drops with mix of #2 Al and 1/0 Al Triplex of length 20" each
Utility "B"	110	#2 CLP or 1/0 CLP	*
Utility "C"	*	*	*
Utility "D"	200	4/0Al UD Triplex	*
Utility "E"	200	1/0 Al Triplex	*
Utility "F"	*	*	*

**Note:** \* corresponds to data not provided